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HG-48 GENERATOR ILLUSTRATION

ILLUSTRATION 1:

The HG-48 Generator is shown with the bottom plate partially removed and the storage compartment exposed. The folded crank and connecting cord are shown within the compartment. C-clamps are accessory equipment used for sturdy positioning during the operation of the generator.

ILLUSTRATION 2:

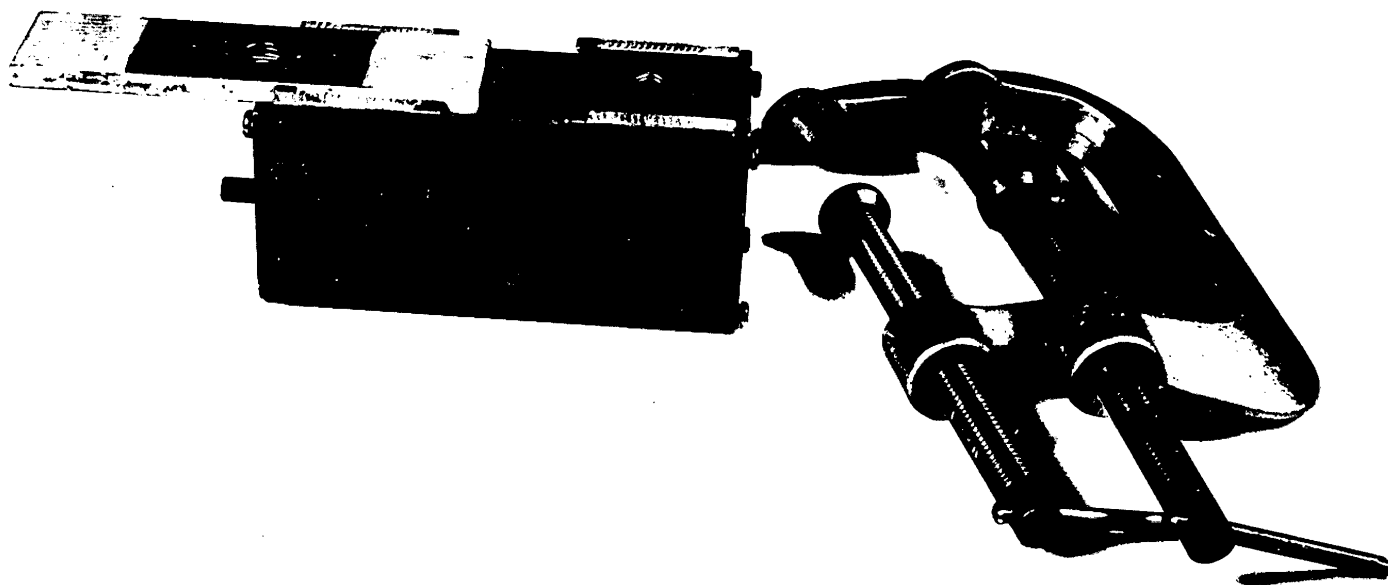
The HG-48 Generator is shown with the hand crank and bottom plate installed and securely mounted with C-clamps for ease in operation.

ILLUSTRATION 3:

The HG-48 Generator, with the crank and bottom plate installed, shown connected to the BS-48 Battery and ready for operation.

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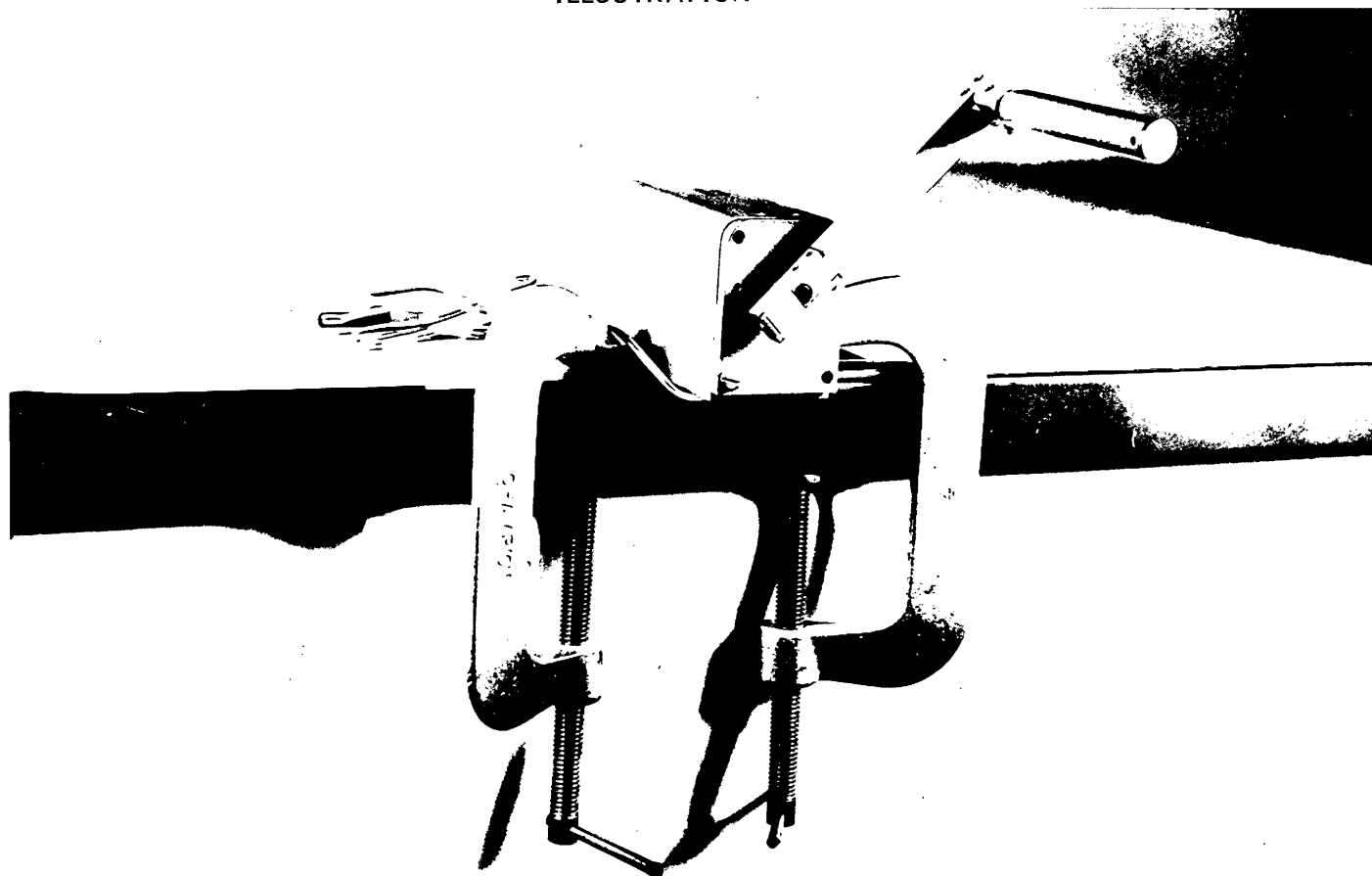
ILLUSTRATION 1



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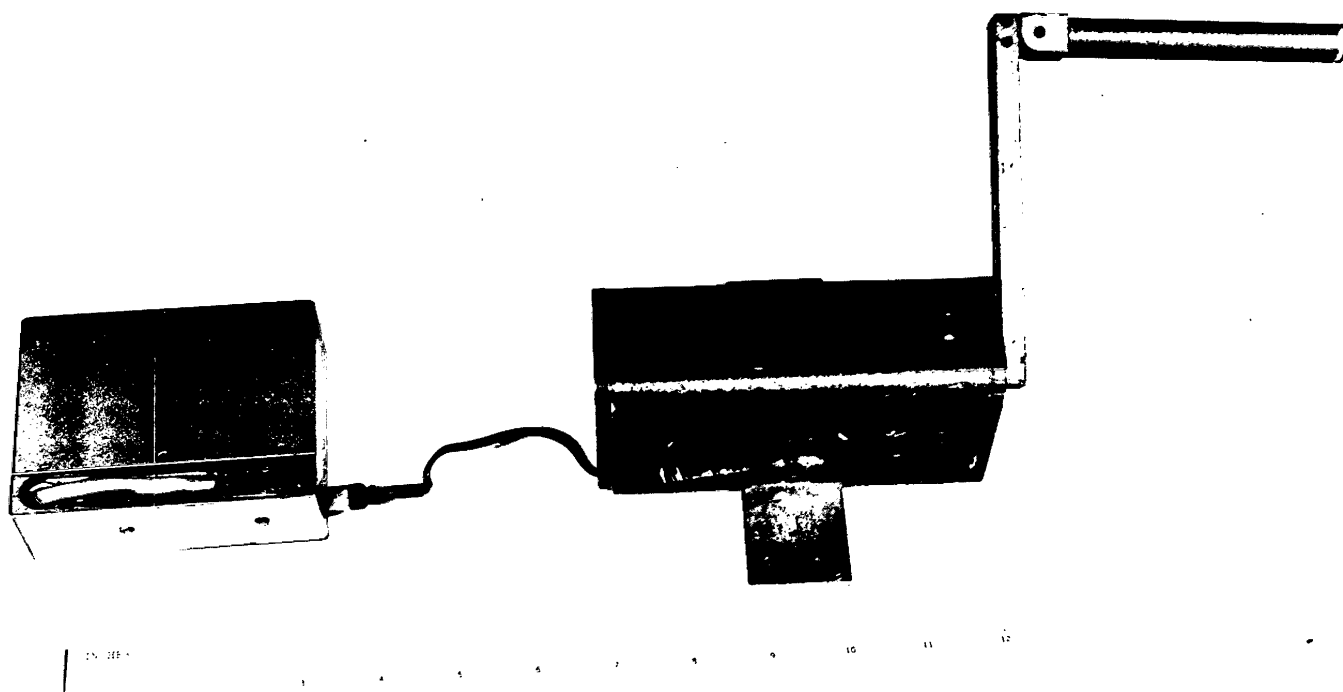
ILLUSTRATION 2



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ILLUSTRATION 3



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HG-48 OPERATING INSTRUCTIONS

A. INTRODUCTION

The HG-48 is a small handcrank generator suitable for charging the BS-48 Battery series. Supplied with the HG-48 Generator are a battery cord and connector, a crank and two C-clamps.

B. PREPARATION FOR USE

1. Remove the bottom plate of the generator by pressing the spring-loaded catch upward and slide the plate outward. The catch is located on the side of the generator. Remove the connector cable and charger crank from the generator storage compartment (see illustration 1).

2. Open the crank by unfolding the handle until it locks in position. (To refold the crank from its locked position, pull out on the handle to unlock it and fold the handle.) Fit the crank arm over the shaft of the generator. If the fit is loose, tighten the set screw located at the end of the crank arm.

3. Insert the bottom plate of the generator in the center slots of the opened storage compartment to form a cross. Be sure that the plate snap-locks in place. (see illustration 2). Use of the C-clamps provided will aid in securing the generator to a table or other available support for ease in operation.

C. OPERATION OF THE GENERATOR

1. Plug the generator cord into the two-pin connector located on the side of the BS-48 battery. (see illustration 3). If the battery is completely discharged the 28 volt indicator on the HG-48 generator will not light. The indicator will light if the battery has even a small charge.

2. Do not crank the generator unless it is first connected to the battery or the generator may be damaged.

3. To charge the battery, crank the generator at a speed of about 60 revolutions per minute. The correct cranking speed is indicated when the 200 MA indicator flashes on and off. If the 200 MA indicator lights continuously, the generator is being cranked too fast and the battery is receiving too much current.

4. Crank the generator 3 minutes, remove the charger connector from the BS-48 battery, and permit the battery to rest 3 minutes. Do not crank the generator more than 3 minutes at one time. Always permit the battery to rest after each cranking period or the battery may be seriously damaged. To conserve the charge placed in the battery, always remove the generator connector from the BS-48 during the rest period. (Note: If the HG-48A Generator is being used, it is NOT necessary to remove the generator connector from the BS-48 battery. A protection device in the HG-48A prevents the battery from discharging through the generator while connected during rest periods.)

5. Each 3 minute cranking and 3 minute rest period is referred to as one charging cycle. Charging procedures are:

a. A charge of 24 cycles is required to fully recharge a completely discharged BS-48 battery. A charge of 67 cycles is required to fully recharge a completely discharged BS/D-48 battery.

b. Stop charging for one hour after every 10 cycles of charge. This will allow the battery to cool and prevent possible battery damage.

c. To replace the battery power used under operating conditions when using the RS-48 equipment, a charge of one cycle (3 minutes) should be performed for every minute the transmitter has been tuned and operated. Do not exceed the number of cycles required to fully recharge a completely discharged battery as described in subpara a above.

D. ON-LINE OPERATION

Occasionally the battery being used may not have a sufficient charge to permit operation of the radio equipment for all or part of a contact. The HG-48 or HG-48A Generator with battery may be used to operate the RT-48 transmitter in on-line operation. This procedure requires two persons, one to operate the generator and one to operate the equipment. After the radio equipment has been properly connected and ready for operation, the generator should be connected to the battery. While tuning or operating the transmitter, crank the generator at a speed necessary to keep the generator 28 volt indicator steadily illuminated. It will be necessary to crank the generator much faster during on-line operation than during battery charging.